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STATE IMPLEMENTATION PLAN EMISSION REGULATIONS FOR NITROGEN OXIDES: FUEL COMBUSTION

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

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This report presents a one page summary of each state's implementation plan (SIP) regulations for nitrogen oxides. The report also explains the relationship between the SIP regulations, the National Ambient Air Quality Standards, and the Federal Standards of Performance for New Stationary Sources, and briefly discusses the various types of emission regulations which appear in the SIPs.

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STATE IMPLEMENTATION PLAN EMISSION REGULATIONS FOR NITROGEN OXIDES: FUEL COMBUSTION

by

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Strategies and Air Standards Division

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
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Research Triangle Park, North Carolina 27711

June 1978

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SCOPE

This report summarizes State Implementation Plan regulations on the emission of nitrogen oxides from fuel combustion equipment. The definition of fuel combustion equipment varies from State to State, but in all States these regulations apply to steam-electric generating plants (power plants) and industrial boilers. In many cases the regulations apply to all fuel users. The regulations generally do not apply to NO_x emissions from incineration, wood burning, or for fuel used as a raw material for chemical processes.

State Implementation Plans (SIPs) are designed to prevent local ambient air concentrations from exceeding the National Ambient Air Quality Standards (Appendix A). In addition to SIP regulations, which are Federally approved and legally enforceable, some States, counties, or cities have adopted local NO_x regulations which may be more stringent than SIP emission requirements. While fuel burning sources may be required to comply with these regulations, in most cases local regulations are not included in this summary.

STATE IMPLEMENTATION PLAN EMISSION REGULATIONS FOR NITROGEN OXIDES: FUEL COMBUSTION

INTRODUCTION

This report contains a summary of each State's implementation plan regulations for the emission of nitrogen oxides; a background section explaining the relationship between these regulations, the Federal ambient air standards, and Federal new source regulations; an overview of the various State regulations, and three appendices. Appendix A outlines the National Ambient Air Quality Standards, Appendix B summarizes the Federal new source regulations for NO_x, and Appendix C explains how to convert units of measure of nitrogen oxide regulations to a common basis.

This document is not an official EPA listing of SIP emission regulations for NO_x, but reflects an interpretation of these regulations which was prepared by EPA's Strategies and Air Standards Division for strategy analysis. Since the primary responsibility for interpreting and enforcing these regulations lies with each state or local air pollution control office, these data should not be used to make assumptions regarding the legal compliance status of any particular facility.

This summary provides a data base of NO_x regulations for use by EPA and other organizations in analyzing the issues of NO_x control and National fuels policies. The summary was compiled from State regulations published in the Environment Reporter and the Code of Federal Regulations and incorporates revisions that have been approved through June 1, 1978. Since these data were not collected directly from the individual State air pollution control agencies, there exists a possibility of errors in some of these

summaries. To assist in correcting these errors and maintaining an accurate data base, the Strategies and Air Standards Division invites comments on this summary, especially from State air pollution control agencies and from EPA regional offices. Comments will be incorporated into revisions of this document which will be published periodically. The revisions will reflect changes to State Implementation Plans which have been approved by EPA since the publication of this document and will correct inaccuracies which may appear in this report. Please address comments to:

U. S. Environmental Protection Agency
Strategies and Air Standards Division
Energy Information Section (MD-12)
Research Triangle Park, North Carolina 27711

BACKGROUND: RELATIONSHIP OF NATIONAL AMBIENT AIR QUALITY STANDARDS, STATE EMISSION REGULATIONS, AND FEDERAL NEW SOURCE STANDARDS

The Clean Air Act Amendments of 1970 gave the Environmental Protection Agency (EPA) the responsibility and authority to control air pollution in the United States and its territories. Among other responsibilities, the Clean Air Act required the Administrator of EPA to promulgate National Ambient Air Quality Standards* for pollutants which he determines adversely affect public health and welfare. In 1971, EPA promulgated National Ambient Air Quality Standards (NAAQS) for six pollutants--sulfur dioxide, nitrogen dioxide, particulate matter, carbon monoxide, hydrocarbons, and photochemical oxidants (Appendix A). For each pollutant, two standards were issued. Primary standards were set at levels necessary to protect the public health and were to be met no later than three years from the date of promulgation (subject to limited extensions). Secondary standards were designed to protect the public from adverse effects to their welfare, such as crop damage, reduction in atmospheric visibility, and corrosion of materials and were to be met in a time frame considered reasonable by the Administrator.

To implement these standards, the Act required each state to adopt and submit to EPA a plan for attaining, maintaining, and enforcing the National Ambient Air Quality Standards in all regions of the state. Each state, therefore, decided (for each pollutant) the otal emission reduction needed to maintain local ambient air levels below the standards and decided which emission sources to control and to what extent. The State Implementation Plans (SIPs) prescribed emission limiting regulations, timetables for compliance with the limitation, and any other measures, such as land-use and transportation controls, which were necessary to insure attainment and maintenance of the standards. The plans were reviewed by EPA and approved if they demonstrated that at a minimum the primary standards would be attained within three years (subject to

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* National Ambient Air Quality Standards (usually expressed in micrograms per cubic meter) establish a maximum level of pollution permitted in the ambient air.

the compliance date extension provisions of the Act) and that the secondary standard would be attained within a reasonable period of time. Disapproved plans (or parts thereof) were returned to the States for revision, or in some cases, substitute regulations were promulgated by EPA.

While the primary responsibility for enforcing SIP regulations rests with the individual States, the Administrator of EPA is responsible for assuring that all implementation plan requirements are fulfilled. As a result, EPA provides technical and legal assistance to the States in enforcing SIP regulations. If any state fails to enforce its implementation plan regulations, the Federal Government may commence a number of administrative or legal actions directed toward non-complying sources.

Most of the State implementation plans were approved in 1972. Following initial approval of the SIPs, many states began submitting to EPA revisions to their implementation plan, many of which alter the emission limitations. Usually, these revisions are based on additional air quality measurement data or on a more detailed technical analysis of air pollution control strategies. When approved by EPA, these revisions become a part of the implementation plan.

In addition to the SIP limitations, emissions from certain sources are restricted further by Federal Standards of Performance for New Stationary Sources (commonly referred to as new source performance standards). A new emission source is one which is designed and constructed after the formal proposal of new source regulations. New sources include newly constructed facilities, new equipment which is added to existing facilities, and existing equipment which is modified in such a way that results in an increase of pollutant emissions. New source standards limit specific pollutant emissions from categories of sources (such as fossil fuel-fired steam generators, municipal incinerators) which the Administrator determines may contribute significantly to the endangerment of public health and welfare. For these sources, the Act requires the Administrator to promulgate emission limitations which will require installation of the best systems of emission reduction which he determines have been adequately demonstrated. Cost factors are considered in making this determination. Federal

new source standards help prevent the occurrence of new air pollution problems, encourage improvements in emission control technology, and provide a mechanism for controlling pollutants which EPA suspects are hazardous, but for which insufficient information is available to regulate such pollutants under other provisions of the Act.

NITROGEN OXIDE EMISSION REGULATIONS

In the following summary of State Implementation Plan regulations for NO_x, one page has been devoted to each state regulation (more pages in a few cases where the summary was lengthy). The states and U. S. territories appear alphabetically with the state name on the top of each page. Under the name is a checklist for identifying the equipment on which the regulation is enforced, the method for computing heat input values, and the time period over which emission measurements are averaged for determining compliance with the regulation. Below this information, the emission regulation is summarized. Where possible, the summaries were formatted similarly, but in each case a format was selected which was believed to be best suited for a lucid explanation of the regulation. Where needed for clarity, further explanatory information about the regulation is presented at the end of each summary in a paragraph entitled "NOTES."

Currently, 32 states have SIP regulations which limit the emission of NO_x from fuel combustion units. Of these 32 states, 11 states regulate NO_x emissions from both new and existing sources and 21 states regulate new sources only. Most of the new source regulations for NO_x are the same as the current Federal New Source Performance Standards except for New Mexico and Vermont which have stricter regulations for coal burning. Massachusetts and parts of California have regulations for new and existing sources which are stricter than the NSPS. The remaining 23 states and territories have no emission limiting regulations for fuel combustion sources. Some of these 23 states have no NO_x emission regulations for any stationary source emitter (designated "No Emission Regulation" in the following summary) while others have regulations for some categories of stationary sources, but no regulations applicable to fuel combustion (designated "No Emission Limit" in the summary). Nitrogen oxide emissions are most commonly regulated by limiting the amount of nitrogen dioxide emitted per unit heat input (#NO_2/MMBtu). Some states, however, limit the NO_2 concentration in effluent gas (parts per million or ppm NO_2 by volume) or the mass rate of emissions (#NO_2/hr). The stringency of NO_x emission limits generally varies according

to the type of fuel burned and, in some cases, also according to the type of firing, rate of gas flow, or size of the combustor

The abbreviations listed below are used on the following pages in explaining NO_x emission regulations

AQCR - Air Quality Control Region
E - Allowable emissions
EPA - U. S. Environmental Protection Agency
MMBtu - Million British thermal units
NAAQS - National Ambient Air Quality Standard
ppm - Parts per million by volume
Q - Heat input rate (MMBtu/hr)
SIP - State Implementation Plan
- Pounds
$\mu g/m^3$ - Micrograms per cubic meter

ALABAMA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

(XX) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Sources — No Emission Limit

B. New Sources (constructed after 9-15-73) with Q ≥ 250 MMBtu/hr:

Coal	0.7 #NO_x/MMBtu
Oil	0.3 #NO_x/MMBtu
Gas	0.2 #NO_x/MMBtu

ALASKA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

AMERICAN SAMOA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources

No Emission Regulation

ARIZONA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

(xx) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(xx) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Installations	No Emission Limit
B. New Installations (constructed after 8-17-71) - Steam Power Plants:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

ARKANSAS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

CALIFORNIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(xx) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Combustion Sources

1. Great Basin Valley Air Basin (AQCR 23)	No Emission Limit
2. South Coast Air Basin (AQCR 24)	
a. Any stationary sources with Q > 2150 MMBtu/hr in Orange and Ventura Counties, Q > 700 MMBtu/hr in West-Central Area of Riverside County, and Q > 1775 MMBtu/hr in all other counties:	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2
b. Additional limitation in Orange County for 500<Q<2150 MMBtu/hr:	
Solid or Liquid Fuel	325 ppm NO_2
Gaseous Fuel	225 ppm NO_2

Continued

REGULATIONS FOR NITROGEN OXIDE EMISSION FROM FUEL COMBUSTION EQUIPMENT

c. Additional limitation in Ventura County for 250≤Q<2150 MMBtu/hr:

Allowable Emission	250 ppm NO_2
Maximum Emission Rate for Existing Sources	20 tons NO_2/day

3. North Central Coast Air Basin (AQCR 25)

a. San Benito County — 500 ppm NO_2

b. Monterey-Santa Cruz County:

Q<100 MMBtu/hr	350 ppm NO_2
100<Q<500 MMBtu/hr	300 ppm NO_2
500<Q<1500 MMBtu/hr	200 ppm NO_2
Q>1500 MMBtu/hr	150 ppm NO_2

4. North Coast Air Basin (AQCR 26) — No Emission Limit
5. Northeast Plateau Air Basin (AQCR 27) — No Emission Limit
6. Sacramento Valley Air Basin (AQCR 28)

a. Tehama County

Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2

b. All other counties — No Emission Limit

7. San Diego Air Basin (AQCR 29)

Existing sources with Q > 50 MMBtu/hr:

Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2

8. Bay Area Air Basin (AQCR 30)

a. 250<Q<1750 MMBtu/hr

Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2

b. Q ≥ 1750 MMBtu/hr

Liquid Fuel	300 ppm NO_2
Gaseous Fuel	175 ppm NO_2

Continued

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

9. San Joaquin Valley Air Basin (AQCR 31)	
a. Mariposa County	200 ppm NO_2
b. Tulare and Tuolumne Counties with Q > 1775 MMBtu/hr	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2
10. South Central Coast Air Basin (AQCR 32)	
a. Santa Barbara County	No Emission Limit
b. San Luis Obispo County	
First 10,000 ft^3/hr gas	1000 ppm NO_2
Additional effluent gas	250 ppm NO_2
Impact on ambient air quality (maximum 1 - hr average)	0.25 ppm NO_2
11. Southeast Desert Air Basin (AQCR 33)	
a. Imperial and Kern Counties	No Emission Limit
b. Los Angeles, Riverside, and San Bernardino Counties	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2
c. San Diego County	
Solid or Liquid Fuel	325 ppm NO_2
Gaseous Fuel	225 ppm NO_2
B. New Combustion Sources	
1. Great Basin Valley Air Basin (AQCR 23)	No Emission Limit
2. South Coast Air Basin (AQCR 24)	
a. All limitations for existing sources also are applicable to new sources	
b. Maximum emission rate for any new fuel burning equipment	140 #NO_2/hr
c. Additional requirement in Orange County for Q > 250 MMBtu/hr (constructed after 4-25-72):	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2

Continued

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

3. North Central Coast Air Basin (AQCR 25)

   a. All limitations for existing sources also are applicable to new sources

   b. Maximum emission rate for any new fuel burning equipment in Monterey-Santa Cruz County (constructed after 1-18-71) — 140 #NO_2/hr

4. North Coast Air Basin (AQCR 26)

   a. Sonoma County — 140 #NO_2/hr
   b. All other counties — No Emission Limit

5. Northeast Plateau Air Basin (AQCR 27)

   a. Siskiyou County (constructed after 5-3-72) — 140 #NO_2/hr
   b. All other counties — No Emission Limit

6. Sacramento Valley Air Basin (AQCR 28)

   a. Sutter, Tehama, and Yolo-Solano Counties — 140 #NO_2/hr
   b. All other counties — No Emission Limit

7. San Diego Air Basin (AQCR 29)

   New sources (constructed after 9-1-71) with Q > 50 MMBtu/hr:

   Solid or Liquid Fuel — 225 ppm NO_2
   Gaseous Fuel — 125 ppm NO_2

8. Bay Area Air Basin (AQCR 30)

   The limitations for existing sources also are applicable to new sources

9. San Joaquin Valley Air Basin (AQCR 31)

   a. All counties — 140 #NO_2/hr
   b. Mariposa, Tulare, and Tuolume Counties

      The limitations for existing sources also are applicable to new sources

10. South Central Coast Air Basin (AQCR 32)

    a. Santa Barbara County — 140 #NO_2/hr
    b. San Luis Obispo County

       The limitations for existing sources also are applicable to new sources

Continued

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

11. Southeast Desert Air Basin (AQCR 33)	
a. Kern County	No Emission Limit
b. San Diego County	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2
c. All other counties	140 #NO_2/hr
d. Additional requirements in Los Angeles, Riverside, and San Bernardino Counties:	
Solid or Liquid Fuel	225 ppm NO_2
Gaseous Fuel	125 ppm NO_2

Note: Emission limitations in ppm NO_2 are calculated at 3% oxygen.

COLORADO

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(XX) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Sources	No Emission Limit
B. New Steam Generators with Q ≥ 250 MMBtu/hr (constructed after 12-5-74):	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

CONNECTICUT

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Sources, Q > 5 MMBtu/hr:[a]

Coal	0.9 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu[b]
Gas	0.2 #NO_2/MMbtu[b]

B. New Sources (constructed after 10-1-74) Q > 5 MMBtu/hr:[a]

Coal	0.7 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu[b]
Gas	0.2 #NO_2/MMBtu[b]

Notes: [a]For units rated between 5 and 250 MMBtu/hr, the regulation shall not apply if it is determined to be technically or economically infeasible by the state.
[b]The emission limit for a stationary gas turbine is 0.9 #NO_2/MMBtu.

DELAWARE

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Burning Equipment	No Emission Limit

DISTRICT OF COLUMBIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(XX) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Steam Generating Units with Q > 100 MMBtu/hr:

Coal	0.7 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu
Gas	0.2 #NO_2/MMBtu

FLORIDA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

(XX) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

(XX) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(XX) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Steam Generators	No Emission Limit
B. New Steam Generators (constructed after 2-11-72) with Q > 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Feul	0.2 #NO_2/Btu

GEORGIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Fuel-burning Equipment	No Emission Limit
B. New Fuel-burning Equipment (constructed after 1-1-72) with Q ≥ 250 MMBtu/hr:	
Coal	0.7 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu
Gas	0.2 #NO_2/MMBtu

GUAM

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

HAWAII

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

IDAHO

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Steam Generators	No Emission Limit
B. New Steam Generators (constructed after 12-5-74) with Q $\geq$ 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

ILLINOIS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(xx) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Fuel Combustion Sources

a. Chicago and St. Louis Major Metropolitan Areas with Q > 250 MMBtu/hr:[a]

Solid Fuel	0.9 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.3 #NO_2/MMBtu

b. All other areas — No Emission Limit

B. New Fuel Combustion Sources (constructed after 4-14-72) with Q ≥ 250 MMBtu/hr:

Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu
Dual Gaseous and Liquid Fuel	0.3 #NO_2/MMBtu

Note: [a]This regulation shall not apply to cyclone fired boilers burning solid or liquid fuel, or horizontally opposed fired boilers burning solid fuel.

INDIANA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Stationary Sources with Q $\geq$ 250 MMBtu/hr:

a. Priority A Basins

Coal	0.7 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu
Gas	0.2 #NO_2/MMBtu

b. Other Basins — No Emission Limit

B. New Stationary Sources (constructed after 3-21-72) with Q $\geq$ 250 MMBtu/hr:

Coal	0.7 #NO_2/MMBtu
Oil	0.3 #NO_2/MMBtu
Gas	0.2 #NO_2/MMBtu

Note: To date, no Indiana counties have been designated as Priority A basins.

IOWA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Sources	No Emission Limit
B. New Sources (constructed after 8-17-71) with Q > 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

KANSAS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Indirect Heating Equipment	No Emission Limit
B. New Indirect Heating Equipment (constructed after 1-1-71) with Q $\geq$ 250 MMBtu/hr:	
Coal	0.9 #NO_2/MMBtu
Oil or Gas	0.3 #NO_2/MMBtu

KENTUCKY

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(xx) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

(xx) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Indirect Heat Exchangers	No Emission Limit
B. New Indirect Heat Exchangers (constructed after 4-9-72) with Q $\geq$ 250 MMBtu/hr:	
Solid Feul (except lignite)	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

LOUISIANA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

MAINE

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

MARYLAND

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

MASSACHUSETTS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Fossil Fuel Utilization Facilities — No Emission Limit

B. New Fossil Fuel Utilization Facilities (constructed after 6-1-72) with Q > 250 MMBtu/hr:

Any Fuel — 0.3 #NO_2/MMBtu

MICHIGAN

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

MINNESOTA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

(XX) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

(XX) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Heating Equipment	No Emission Limit
B. New Heating Equipment (constructed after 10-4-76) with Q > 250 MMBtu/hr:	
Solid Fuel[a]	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

Note: [a]The regulation shall not apply to burning of lignite or a solid fossil fuel containing 25% or more of coal refuse.

MISSISSIPPI

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

MISSOURI

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

MONTANA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Steam Generators — No Emission Limit

B. New Steam Generators (constructed after 8-17-71) with Q > 250 MMBtu/hr:

Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

NEBRASKA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Steam Generators	No Emission Limit
B. New Steam Generators (constructed after 8-17-71) with Q > 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

NEVADA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Steam Generators	No Emission Limit
B. New Steam Generators (constructed after 8-17-71) with Q > 250 MMBtu/hr:	
Solid Fuel[a]	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

Note: [a]The regulation shall not apply to burning of lignite or a solid fossil fuel containing 25% or more of coal refuse.

NEW HAMPSHIRE

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

NEW JERSEY

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

NEW MEXICO

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Equipment:

Coal (for Q > 250 MMBtu/hr), effective 12-31-74, 0.7 #NO_2/MMBtu
Oil (for Q > 10^6 MMBtu/yr), effective 2-17-72, 0.3 #NO_2/MMBtu
Gas (for Q > 10^6 MMBtu/yr), effective 12-31-74, 0.3 #NO_2/MMBtu

B. New Equipment (constructed after 9-1-71):

Coal (for Q > 250 MMBtu/hr) 0.45 #NO_2/MMBtu
Oil (for Q > 10^6 MMBtu/yr) 0.3 #NO_2/MMBtu
Gas (for Q > 10^6 MMBtu/yr) 0.2 #NO_2/MMBtu

NEW YORK

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(xx) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Stationary Combustion Installations — No Emission Limit

B. New Stationary Combustion Installations (applications for construction permit received by the state after 8-11-72) with Q > 250 MMBtu/hr:[a]

Solid Fuel	0.7 # NO_2/MMBtu
Liquid Fuel	0.3 # NO_2/MMBtu
Gaseous Fuel	0.2 # NO_2/MMBtu

Note: [a]The regulation shall not apply to gas turbine and internal combustion engines.

NORTH CAROLINA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Boilers with Q > 250 MMBtu/hr:

Coal	1.3 #NO_2/MMBtu
Oil	0.6 #NO_2/MMBtu
Gas	0.6 #NO_2/MMBtu

NORTH DAKOTA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

OHIO

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(XX) 2. 24 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Combustion Sources with Q > 250 MMBtu/hr:

a. Priority I Regions:

Coal-fired Boiler	0.9 #NO_2/MMBtu
Oil-fired Boiler	0.3 #NO_2/MMBtu
Gas-fired Boiler	0.2 #NO_2/MMBtu

b. Other Regions — No Emission Limit

B. New Combustion Sources (constructed after 1-28-72) with Q > 250 MMBtu/hr:

Coal-fired Boiler	0.9 #NO_2/MMBtu
Oil-fired Boiler	No Emission Limit
Gas-fired Boiler	No Emission Limit

Note: The Priority I Regions include AQCRs 79,124,173,174 and 176.

OKLAHOMA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Fuel-burning Equipment	No Emission Limit
B. New Fuel-burning Equipment (constructed after 1-23-72) with Q > 50 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

OREGON

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Sources	No Emission Limit
B. New fossil fuel-fired steam generators (constructed after 8-17-71) with Q > 250 MMBtu/hr:[a]	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

Note: [a]The regulation shall not apply to burning of lignite or a solid fuel containing 25% or more of coal refuse.

PENNSYLVANIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

PUERTO RICO

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

RHODE ISLAND

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

SOUTH CAROLINA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

SOUTH DAKOTA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(xx) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

(xx) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Burning Equipment:

Coal	No Emission Limit
Oil	0.3 #NO_2/MMBtu
Gas	0.2 #NO_2/MMBtu

TENNESSEE

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

(XX) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

(XX) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(XX) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Air Contaminant Sources	No Emission Limit
B. New Air Contaminant Sources (constructed after 4-3-72) with Q ≥ 250 MMBtu/hr:	
Solid Fuel	525 ppm NO_2[a]
Liquid Fuel	227 ppm NO_2[a]
Gaseous Fuel	165 ppm NO_2[a]

Note: [a]The effluent concentrations are to be corrected to 15% excess air.

TEXAS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in (#steam/hr), shall be the:

( ) 1. aggregate heat content of all fuels burned
(xx) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
(xx) 2. 2 hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Steam Generating Units:

A. Solid or Liquid Fuel-fired	No Emission Limit
B. Gas-fired[a]	
1. Dallas-Fort Worth and Houston-Galveston AQCRs with steam capacity > 600,000 #steam/hr:	
Opposed-fired	0.7 #NO_2/MMBtu
Front-fired	0.5 #NO_2/MMBtu
Tangential-fired	0.25 #NO_2/MMBtu
2. Other AQCRs	No Emission Limit

Note: [a]The regulation shall not apply to unit with capacity between 600,000 and 1,100,000 #steam/hr if the unit is utilized less than 30% during any calender year.

UTAH

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation

VERMONT

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Combustion Installations	No Emission Limit
B. New Combustion Installations (completed after 7-1-71) with Q $\geq$ 250 MMBtu/hr	0.3 #NO_2/MMBtu

VIRGIN ISLANDS

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(xx) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

VIRGINIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(XX) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Combustion Sources	No Emission Limit
B. New fossil fuel-fired steam generators (constructed after 8-17-71) with Q > 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Fuel	0.2 #NO_2/MMBtu

WASHINGTON

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources	No Emission Regulation[a]

Note: [a]Ambient air quality impact from any source shall not exceed 100 $\mu g/m^3$ annual arithmetic mean.

WEST VIRGINIA

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
(XX) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.
(XX) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
( ) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

( ) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

Fuel Combustion Sources — No Emission Regulation

WISCONSIN

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

( ) 1. aggregate heat content of all fuels burned
(XX) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(XX) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Combustion Sources	No Emission Limit
B. New fossil fuel-fired steam generators (constructed after 7-1-75) with Q > 250 MMBtu/hr:	
Solid Fuel	0.7 #NO_2/MMBtu
Liquid Fuel	0.3 #NO_2/MMBtu
Gaseous Feul	0.2 #NO_2/MMBtu

WYOMING

REGULATIONS FOR NITROGEN OXIDE EMISSIONS FROM FUEL COMBUSTION EQUIPMENT

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(XX) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

(xx) 1. no time interval specified.
( ) 2. _____ hours.

II. THE STATE IMPLEMENTATION PLAN REGULATION

A. Existing Fuel Burning Equipment:[a]

a. Solid Fuel (except Lignite)	0.75 #NO_2/MMBtu
b. Liquid Fuel:	
Q < 250 MMBtu/hr	0.6 #NO_2/MMBtu
Q ≥ 250 MMBtu/hr	0.46 #NO_2/MMBtu
c. Gaseous Fuel	0.23 #NO_2/MMBtu

B. New Fuel Burning Equipment (constructed after 2-22-72): [a]

a. Solid Fuel (except Lignite)	0.7 #NO_2/MMBtu
b. Liquid Fuel:	
Q < 1 MMBtu/hr	0.6 #NO_2/MMBtu
Q ≥ 1 MMBtu/hr	0.3 #NO_2/MMBtu
c. Gaseous Fuel	0.2 #NO_2/MMBtu

Note: [a]The regulation shall not apply to internal combustion engines having a heat input of less than 200 MMBtu/hr.

Appendix A

NATIONAL AMBIENT AIR QUALITY STANDARDS

SUMMARY OF NATIONAL AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	PRIMARY STANDARDS	SECONDARY STANDARDS	FEDERAL REFERENCE METHOD (FRM)	COMMENTS
PARTICULATE MATTER	Annual (Geometric Mean) 24 - Hour*	75 µg/m³ 260 µg/m³	60 µg/m³ 150 µg/m³	Hi-Volume Sampler	The secondary annual standard (60µg/m³) is a guide for assessing SIPs to achieve the 24-hour secondary standard.
SULFUR DIOXIDE	Annual (Arithmetic Mean) 24 - Hour* 3 - Hour*	80 µg/m³ (0.03ppm) 365 µg/m³ (0.14ppm) ——	—— —— 1300 µg/m³ (0.5ppm)	Pararosaniline	
CARBON MONOXIDE	8 - Hour* 1 - Hour*	10 mg/m³ (9ppm) 40 mg/m³ (35ppm)	(Same as Primary)	Non-Dispersive Infrared Spectrometry	
NITROGEN DIOXIDE	Annual (Arithmetic Mean)	100 µg/m³ (0.05ppm)	(Same as Primary)	Chemiluminescence	On 12/14/77, sodium arsenite and TGS-ANSA were designated as equivalent methods for measuring 24-hour samples.
PHOTOCHEMICAL OXIDANTS	1 - Hour*	160 µg/m³ (0.08ppm)	(Same as Primary)	Chemiluminescence	The FRM measures O, (ozone)
HYDROCARBONS (Non-Methane)	3 - Hour* (6 to 9 a.m.)	160 µg/m³ (0.24ppm)	(Same as Primary)	Flame Ionization	The HC standard is a guide to devising SIPs to achieve the Oxidant standard. The HC standard does not have to be met if the oxidant standard is met.

*Not to be exceeded more than once per year.

NOTE: The air quality standards and a description of the reference methods were published on April 30, 1971 in 42 CRF 410, recodified to 40 CFR 50 on November 25, 1972.
May 31, 1978 - JDC

Appendix B

NEW SOURCE PERFORMANCE STANDARDS FOR NO_x

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

NITROGEN OXIDE EMISSIONS

I. BASIS FOR DETERMINING ALLOWABLE EMISSION RATE

A. The heat input value (Q), expressed in MMBtu/hr, shall be the:

(xx) 1. aggregate heat content of all fuels burned
( ) 2. maximum design heat input
( ) 3. maximum of 1 and 2
( ) 4. not applicable

For:

( ) 1. all fuel burning units at a plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.
( ) 4. not applicable.

B. The regulation applies to:

( ) 1. an entire plant.
(xx) 2. an individual boiler.
( ) 3. an individual stack.

C. The time period over which the emissions are to be averaged:

Continuous (See Notes)

II. THE FEDERAL STANDARDS OF PERFORMANCE

Fossil-Fuel Fired Steam Generating Units
(Constructed or modified after August 17, 1971
with Q > 250 MMBtu/hr):

1.	Solid Fuel	0.7 #NO_2/MMBtu
2.	Liquid Fuel	0.3 #NO_2/MMBtu
3.	Gaseous Fuel	0.2 #NO_2/MMBtu

NOTES: 1. Installation of a continuous monitoring system is required if the initial performance test results show that nitrogen oxide emissions are greater than 70% of the applicable standard.

2. EPA plans to propose the following revised standards for new sources:

A. Allowable Emissions

(1) Solid fuels:

a.	Subbituminous coal, shale oil and any fuel derived from coal	0.5 #NO_2/MMBtu
b.	Lignite if burned in a slag tap furnace and mined in ND, SD, or MT (only for fuels containing more than 25% lignite by weight)	0.8 #NO_2/MMBtu

Continued

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

NITROGEN OXIDE EMISSIONS

(Continued)

c. Coal refuse (containing more than 25%, by weight, coal refuse)	No Emission Limit
d. Solid fuels not covered above	0.6 #NO_2/MMBtu
(2) Liquid fuels (except shale oil and liquid fuel derived from coal)	0.3 #NO_2/MMBtu
(3) Gaseous fuels (except gaseous fuel derived from coal)	0.2 #NO_2/MMBtu

B. Reduction Requirement of Uncontrolled Emissions

(1) Solid fuels	65% control
(2) Liquid fuels	30% control
(3) Gaseous fuels	25% control

Appendix C

CONVERSION FACTORS FOR NO_x EMISSION REGULATIONS

CONVERSION FACTORS FOR NITROGEN OXIDE EMISSION REGULATIONS

The following equations can be used to convert the units of measure of emission regulations of nitrogen oxides to $\#NO_2$/MMBtu.

Nomenclature:

A	SIP value in given units
E	Emission of nitrogen oxides in units of $\#NO_2$/MMBtu
H_c	Heat content of coal in Btu/#
H_g	Heat content of gas in Btu/Scf
H_o	Heat content of oil in Btu/gal
Q	Heat input rate in MMBtu/hr
X	Excess air in units of % excess
Y	Oxygen consumed to form nitrogen oxides, expressed in units of mole % of theoretical oxygen requirement.

Computation:

Units of the regulation (A)	E ($\#NO_2$/MMBtu)
$\#NO_2$/hr	
Coal	A/Q
Oil	A/Q
Gas	A/Q
ppm NO_2 by volume (assuming the values of X and Y are available)	
Coal	$\frac{A}{H_c}\left(3.36\,\frac{476 + 4.76X - 0.5Y}{100 - Y} + 0.659\right)$
Oil	$\frac{A}{H_o}\left(35.3\,\frac{476 + 4.76X - 0.5Y}{100 - Y} + 8.71\right)$
Gas	$\frac{A}{H_g}\left(0.252\,\frac{376 + 4.76X + 0.5Y}{100 - Y} + 0.378\right)$
ppm NO_2 by volume (assuming X = 0% and Y = 3%	
Coal	$17.1\ A/H_c$
Oil	$181.5\ A/H_o$
Gas	$1.36\ A/H_g$

Assumptions:

1. The air fed to the combustion equipment is assumed to contain no moisture.

2. Complete combustion is assumed.

3. The stack gas is assumed to be an ideal gas.

4. Density of oil is assumed to be 7.88 lb/gal.

5. In the conversion from units of ppm NO_2 by volume, it is assumed that coal contains 72% C, 5% H_2, 2% N_2 and 10% moisture.

6. In the conversion from units of ppm NO_2 by volume, it is assumed that fuel oil contains 88% C, 9.5% H_2 and 0.5% moisture.

7. In the conversion from unit of ppm NO_2 by volume, it is assumed that gas contains 90% CH_4, 8% C_2H_6, 1% CO_2 and 1% N_2.